

picture which shows the deficiency and the loss of yields that one may expect. As a defense measure crops must be of high quality, and proper plant nutrition is absolutely necessary if we are to produce in abundance.

Sales of this book have been unusually high which testifies to its real worth. Credit, however, must be given to its sponsors who contributed freely of their time and to the Soil Improvement Committee of the National Fertilizer Association who agreed to be responsible for the sale of enough copies so that the price of the book would be within reach of all.

FORDHAM UNIVERSITY

WM. J. BONISTEEL.

FIELD TRIPS OF THE CLUB

TRIP OF SEPTEMBER 28, 1941, TO LAKE BEAR SWAMP (LAKE OWASSA) AND SPRINGDALE, N. J.

This was a joint outing with the American Fern Society. Our first find was made before reaching the swamp. Among the revegetating species in a long abandoned field at the edge of the swamp we found the two gentians typical of north Jersey, *Gentiana quinquefolia* and *G. Andrewsii*. Two species of Botrychium were taken here also. In rapid succession as we entered the swamp the Massachusetts fern, and the two chain ferns were encountered. All of the species commonly to be expected in this habitat were found. Our trip had been prompted by the leader's interest in a press report that "mining" operations were in progress in the vicinity. It seems that a so-called "peat" is obtained from the root masses (tussocks) of *Osmunda*. No evidence of such activity was encountered though *Osmunda* was plentiful. This is a large swamp and we did not cover it all, though the difficulty of crossing a sector of *Rhododendron* thicket convinced most of the party that they had travelled miles. The reward here was a good feed of wild grapes in their prime. Before leaving the parking place many of the group were successful in finding *Isoetes* along the shore of Lake Owassa.

After lunch we returned to Newton and the leader obtained permission from Mr. Whittingham to cross his pasture to the well-known Springdale swamp region. Many previous visits to this area have been made. Clinton's and Goldie's ferns are abundant in parts

of the swamp as well as numerous other species of *Dryopteris*. During the past forty years many hybrid forms have been discovered by the members of the two clubs. One such colony of *Goldiana x Marginalis* was visited. This colony was first reported by Philip Dowell. At this time it was found to contain several plants, generally in good condition despite the dry season. Two plants of hart's tongue fern were planted here by the Fern Society some years ago. Mr. Leon Bowen had reported them in good condition last winter. We found one plant to have nine good-sized leaves, eight of them fertile. No signs of reproduction were to be seen. The other plant was in poor condition so it was reset in the hope of finding more congenial surroundings. The leader pointed out that the soil and rock conditions of the native habitat in central New York are similar but the slopes are higher and cooler there. No visit to the Springdale swamp would be complete without including the Big Spring. There is a large colony of the common water buttercup here, *Ranunculus delphinifolius*. It was in flower at this date. On other trips we have collected it in flower as early as May 15, indicating a possible flowering period of nearly five months. Attendance: about 30. Leader: R. C. Benedict.

JOHN A. SMALL

TRIP OF JUNE 21-JULY 5—EASTERN NEW ENGLAND TOUR

This trip of some 1800 miles was held substantially as announced in the field schedule. The hotel selected on Mt. Monadnock was the Half Way House which we found completely adequate. Plants of the Canadian and sub-alpine zones were seen on Mt. Monadnock, some of them in great beauty and abundance. Forestry practices and the destruction caused by the hurricane in 1938 were seen at the Caroline A. Fox Research and Demonstration Forest. Both of these walks were led by Dr. Henry I. Baldwin. Dr. Albion Hodgdon gave us some good trips in the Durham vicinity, stressing the behavior of plants at the end of their range. A northern bog, cedar swamp, and various upland situations were examined.

Mr. Arthur H. Norton of the Portland Society of Natural History, assisted by the botanists of the University of Maine, gave us a tour of York County in southwestern Maine. Sand barrens, bog lake, seashore, salt marsh, and fresh marsh were included. Intermediate stops were made at stations for particular plants of

local occurrence. We climbed Mt. Agamenticus (alt. 673 ft.) for a grand view of the surrounding country. This is the high point of York County and is of local importance in being near the shore, forming a landmark in the monotonous coastline as viewed from the sea. Of course it figures in local nautical yarns. To us it brought *Selaginella rupestris*, *Juniperus communis*, and a dwarf species of Amelanchier, in addition to the more common species of the maple-oak forest. An old friend *Arctostaphylos Uva-ursi* was found here growing over the exposed granite.

Mt. Washington was a high point in many ways. Both Pinkham Notch Camp and Glen House were delightful though quite different. We had two splendid days. The two endemics, *Geum Peckii* and *Houstonia caerulea* var. *Faxonorum* were abundant and in full bloom. Dr. Baldwin arranged a fine symposium in the Alpine Garden with speakers who knew the region from first-hand research. These included Dr. Richard Goldthwaite on geology, Dr. R. F. Griggs on ecology, Mr. Norton on birds, Dr. C. F. Jackson on mammals, Dr. S. K. Harris on plants, a representative of the Mt. Washington Observatory on climate, and a member of the Forest Service on management policy of the White Mt. National Forest.

Two equally spectacular days awaited us at Mt. Katahdin. A five-mile hike to and from the northern terminus of the Appalachian Trail. A climb down and up the Chimney. Overnight in lean-tos on bough beds. Meals by a Maine guide or at a Maine sporting camp. Crossing the summit in clouds. All these conspired to enhance our pleasure in seeing the many species of alpine plants to which Dr. F. H. Steinmetz led us. The heat of the sun on the mountain table-land, the cold of the mild storm, snow in protected ravines, high winds, steep slides, cliffs, dry exposed rock, springs, and Chimney Pond were some of the varied habitats that we examined. The response of forest species to altitude and these other factors was carefully noted by Dr. Pierre Dansereau of the Montreal Botanical Garden.

The trip through eastern Maine was no less outstanding for Dr. Steinmetz went to unending pains to show us unique habitats and particular species of plants. Streams, the stony coastal headlands, the raised bogs or high moors, and the blueberry barrens were accompanied by most interesting elaboration of their environ-

ment and floristics. Good lodgings and intriguing meals ranging from a picnic with "makings" obtained at a four corners store (which had been in business for over 100 years) to a complete Maine shore dinner kept us in trim for the long days collecting and the short evenings (nights) for pressing.

Finally a day in Acadia National Park with Maurice Sullivan, Park Naturalist, brought our tour to a close. Species have not been mentioned in this report because of the vast number that were of interest and the limitations of space. Lists from characteristic habitats and local stations of botanical significance have been previously recorded by others and are available. A possible extension of range in the discovery of *Iris setosa* at Jonesport by Dr. Jacques Rousseau of the University of Montreal is our only chance of contributing to botanical science. Daily attendance fluctuated from seventeen to fifty-eight. Total participation was seventy-five. A final word of thanks to all who guided us.

JOHN A. SMALL

PROCEEDINGS OF THE CLUB

MINUTES OF THE MEETING OF OCTOBER 15, 1941

The meeting was called to order by the First Vice-President, Dr. E. B. Matzke, at the New York Botanical Garden at 3:30 P.M. Thirty-five members and friends were present.

In the absence of the Recording Secretary the Corresponding Secretary read the minutes of the previous meeting. These were adopted with correction.

It was voted that Miss Mary Gojdics, Duchesne College, Omaha, Neb., be unanimously elected to annual membership.

The Corresponding Secretary requested the permission of the Club to have its name used in the press as being opposed to the proposed amendment to the State Constitution which would permit construction of a ski trail on Whiteface Mountain. After discussion, it was moved by Dr. Camp that this permission to use the Club's name be granted. Dr. Kolk seconded the motion and the Club so voted.

The scientific part of the program consisted of two discussions illustrated by lantern slides and living specimens. The first speaker,